

REMARKS

In the Office Action dated August 20, 2007, the Examiner rejected claims 1-6, 15, 17, 25-26, 31 and 35 under 35 USC § 102(b) as anticipated by GB 1 416 168 ("Frankl"). In addition, claims 1-3, 15-17, 24-25, 27-38, 31, 35 and 40-41 are rejected by the Examiner as anticipated by U.S. Patent No. 6,536,271 issued to Gopalakrishnan et al. ("Gopalakrishnan et al.").

In response to the Office Action, Applicant has amended rejected claim 1 to include all of the limitations of claims 2 and 3 into amended claim 1 as follows:

A method of monitoring the condition of a pump, or a component of a system having a pump wherein the component is not a component of the pump, the method comprising the steps of:

generating a predetermined test condition in the pump or system component comprising generating an abnormal load condition whereby the pump or system component is subject to an increased stress as compared with normal operating stresses and further comprises causing a reduction in clearance between parts of the pump; and

obtaining signals indicative of a condition of the pump or system during a period in which the test condition is present, the test condition occurring during a period in which the reduction in clearance between parts of the pump is present.

Applicant respectfully submits that amended independent claim 1 is neither anticipated by, nor rendered obvious by either Frankl and Gopalakrishnan et al., alone or in combination.

Frankl discloses monitoring the hysteresis between the voltage signal from the motor and a signal from the governor, and in particular how quickly the governor, and therefore fuel injection function responds to a change in speed of the motor. Frankl does not disclose, as presently claimed in amended claim 1 generating an abnormal stress on a pump, and moreover does not disclose generating a stress on the pump which causes a variation in the clearance within the pump as also claimed in amended claim 1. The present invention teaches that the

abnormal load causes a change in clearance which, from monitoring motor current, exhaust gas temperature, stator temperature, etc. gives an early indication of the condition of the pump.

Similarly, Gopalakrishnan et al. discloses the monitoring of two different pressures within a pump to measure the flow of fluid through the pump. It does not disclose generating an abnormal stress on the pump and also does not disclose generating an abnormal load which causes a reduction in the clearances within the pump as claimed in amended claim 1.

Applicant respectfully submits in view of the foregoing amendments to the claims and remarks that amended claim 1 distinguishes over the cited references and that claim 1 is allowable.

Dependent claim 4 has been amended to depend from amended independent claim 1. Dependent claims 4-6, 15-17, and 24-28 depend directly or indirectly from amended independent claim 1 and are neither anticipated nor rendered obvious by the cited references for at least the same reasons as stated above that amended claim 1 is neither anticipated nor rendered obvious.

The Examiner's rejection of claims 31 and 35 as anticipated by both Frankl and Gopalakrishnan et al., and of claims 40-41 as anticipated by Gopalakrishnan et al. have been rendered moot by the cancellation of these claims.

Applicant acknowledges the rejection of claim 15 under 35 USC § 112, second paragraph, and has clarified that the "apparatus" is "the system having a pump" and by inserting a period at the end of the sentence.

Applicant acknowledges with appreciation the cited references but which were not applied to the claims.

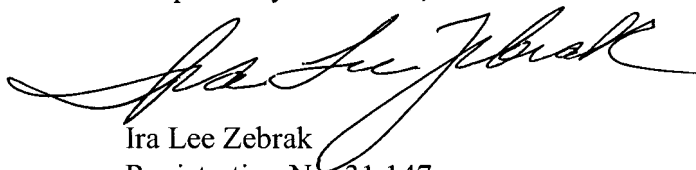
Applicant submits that in view of the foregoing amendment and remarks that claim 1 and dependent claims 4-6, 15-17, 24-28 are neither anticipated nor rendered obvious by the cited references, alone or in combination, and accordingly are allowable.

Applicant respectfully submits that upon allowance of amended claim 1, withdrawn claims 7-14 and 18-23 which depend directly or indirectly from claim 1 will also be allowable.

Respectfully submitted,

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